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**Via Email and Hand Delivery**

Hon. Shira A. Scheindlin  
United States District Judge  
U.S. District Court, Southern District of New York  
500 Pearl Street  
New York, New York 10007

Re: *City of New York v. ExxonMobil*, 04 CV 3417 (SDNY)  
Reply in Support of Motion to Strike Testimony of Dr. Sandra Mohr

Dear Judge Scheindlin:

Exxon misapprehends the City's motion. Dr. Mohr's testimony should be excluded not because her opinions conflict with those of the City's toxicological experts, but because they lack foundation in the scientific evidence. The City does not move on the grounds that "some other sources," including Drs. Burns and Rudo, disagree with Dr. Mohr, but on the grounds that Dr. Mohr misrepresented the state of scientific knowledge to the jury. In short, this is not the sort of vigorous disagreement over the interpretation of the existing literature that should be referred to the jury for resolution. Rather, Dr. Mohr's testimony amounts to a repudiation, not an interpretation, of the available scientific evidence. Therefore – not simply because scientists may disagree, but because Dr. Mohr's opinions standing alone are fundamentally unreliable – the City moves to strike her testimony.

Moreover, certain of Dr. Mohr's opinions expressed at trial were not disclosed in her expert report. ExxonMobil's argument that "Dr. Mohr can hardly be blamed for not testifying" to her mutagenicity opinions in her 2001 deposition glosses over the fact that those opinions had to have been identified in the report. They were not. For these reasons, Dr. Mohr's testimony should be stricken and the jury instructed to disregard it.

**Dr. Mohr's Opinions About Carcinogenicity and Mutagenicity Are Not Grounded in the Scientific Literature**

Dr. Mohr's opinion about MTBE's carcinogenicity was not rooted in the available scientific literature. As an illustrative counterexample, Dr. Burns' conclusions were *not* inconsistent with the NYSDOH statement that "[w]hether or not MTBE causes cancer in humans is unknown." (See 9/11/09 McGill Ltr. at 2.) As Dr. Burns explained at trial, "in order to call something a human carcinogen, we have to have a human study that proves it causes cancer in

people. So, we can't call this what they call a *known* human carcinogen, but we can say it's a probable human carcinogen because we have more than enough evidence to show it is very, very likely to cause cancer in human beings." (8/27/09 Trial Transcript, p. 2820, line 21 to p. 2821, line 2, emphasis added.) The conclusion that MTBE is a "probable" human carcinogen admits the existence of uncertainty in the scientific literature. Dr. Mohr, on the other hand, permitted no uncertainty in opining that MTBE is "not carcinogenic in humans," despite a plethora of readily available evidence – in the literature Dr. Mohr herself cited – that it *could* be.<sup>1</sup>

Dr. Mohr's statements about the potential mutagenicity of MTBE likewise conflict with the evidence she cited. The Toxicological Review relied on much more than the Belpoggi study in concluding that MTBE is likely to cause DNA damage. In fact, the Toxicological Review's conclusion was based not on the Belpoggi study but on the fact that MTBE caused mutations in lymphoid cell lines; the Belpoggi findings of lymphoma and leukemia in MTBE-exposed rats were cited in order to *contextualize* and highlight the relevance of those lymphoid cell line mutations. Dr. Mohr's rejection of the Belpoggi study (contrary to the undisputed facts cited by Dr. Rudo) does nothing to delegitimize the mutagenicity evidence directly relied on by the NYSDOH.

Given that a significant number of studies have shown that MTBE demonstrates some mutagenic activity, Dr. Mohr's contrary opinion lacks a foundation in science. *See Calhoun v. Honda Motor Co.*, 738 F.2d 126, 131-32 (6th Cir.1984) (expert testimony must be based on the evidence, so as to be removed from the realm of guesswork and speculation). As Dr. Kenneth Rudo testified, "[w]hen you get to three or four or five positive mutation studies, in the toxicology world it causes mutations and that's the end of the story." (9/02/09 Trial Transcript, p. 3262, lines 22-24.) He also explained that the existence of negative studies does not support Dr. Mohr's conclusion either: "Here we have 8 or 9 positive studies and probably 10 or 15 negative studies. But with any chemical that causes mutations, you're always going to have positive studies and negative studies. So it's actually now very much in the realm of chemicals that we know are very, very significant chemicals that can cause mutations." (9/02/09 Trial Transcript, p. 3262, line 25 to p. 3263, line 5.)

Finally, the City did not simply argue that the Du and Yuan studies disagree with Dr. Mohr's conclusion that MTBE is not a mutagen (although they do). Rather, the Du and Yuan studies make clear that Dr. Mohr's opinion that DNA adducts have no relationship to human disease finds no support in the scientific literature. The authors of the Yuan study contextualized their findings by explaining that "DNA adduct level is positively correlated with the genotoxicity and hence the carcinogenicity of the chemicals." (Exh. 4 to the City's 9/9/09 Motion to Strike at p. 634) And the authors of the Du study explained that "direct investigation of DNA adduction is necessary or very helpful for assessing whether the test compound is a genotoxin." (Exh. 5 to

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<sup>1</sup> ExxonMobil's argument that Dr. Mohr's carcinogenicity opinion was clear from her report (9/11/09 McGill Ltr. at 5) misses the City's point. The City has not complained that Dr. Mohr's *carcinogenicity* (as opposed to *mutagenicity*) opinion was not present in the report, but rather that her carcinogenicity opinion is not grounded in the available scientific evidence.



the City's 9/9/09 Motion to Strike at p. 398. This was not a study finding that would have been potentially subject to Dr. Mohr's methodological critique; this was a background statement that summarized the scientific consensus on the topic. Dr. Mohr, in contrast, testified that she does not believe that DNA adducts or mutagenicity are relevant to cancer, but has never pointed to a foundation for this belief in the scientific literature.

### **Dr. Mohr's Statements About FDA Approval and IARC Classification Were Both Inaccurate and Prejudicial**

Exhibit C to ExxonMobil's letter brief reproduces the plainly stated and bold-typed conclusion of Dr. Mohr's report concerning MTBE and gallstones: "MTBE has received FDA approval for use as a human medication to dissolve gallstones." (9/11/09 McGill Ltr., Exhibit C, p. 8.) That statement, not the term "investigational status," is what is most "prominent in both Dr. Mohr's report, and in her trial testimony" (9/11/09 McGill Ltr. at 4). Given the special importance attached to expert testimony, the jury is especially likely to be misled by Dr. Mohr's repeated overstatement of the case.

The same is true of Dr. Mohr's assertions about the IARC. Dr. Mohr's misstatement was not cured by her subsequent testimony that the IARC does not classify MTBE as a probable human carcinogen. Clearly, if the IARC says "that MTBE is not a human carcinogen" in the first place, they certainly would "not classify it as a probable human carcinogen" either. (See 9/11/09 McGill Ltr. at 4.) Dr. Mohr's testimony was plainly intended to create the impression that the IARC believes MTBE is not a human carcinogen at all, and certainly not a probable one. That the second sentence *in isolation* would have been technically true does not mean that Dr. Mohr successfully corrected herself to avoid misleading the jury.

### **Dr. Mohr Did Not Address Mutagenicity In Her Report**

ExxonMobil's focus on the existence and timing of Dr. Mohr's deposition testimony ignores the City's point, which is that the opinions in question were not present in her report. Exxon's argument that it was the City's obligation to depose Dr. Mohr again to cure the defects in her report are complete sophistry. Dr. Mohr was obligated to set forth all of her opinions in her report and she failed to do so.

As for the mutagenicity of MTBE, Dr. Mohr's expert report simply criticized Dr. Burns' reliance on certain mutagenicity studies and did not contain a separate, stand-alone opinion of her own on either mutagenicity or the relevance of DNA adducts to human disease. Dr. Mohr's sole opinion that is even *implied* by the statements made in her report is that a study showing that MTBE causes DNA adducts may have been methodologically flawed. (See 9/11/09 McGill Ltr., Exhibit B, p. 18 ("this study has been criticized in that the way it was conducted, it was impossible for the authors to know whether the tagged carbon on the DNA came from a DNA adduct or from the metabolism of MTBE to formaldehyde and from the 1-carbon pool into normal incorporation into DNA").) At trial, Dr. Mohr went far beyond criticizing the methodology of one study and instead stated that "DNA adducts ... do not correlate with

disease.” (9/1/09 Trial Transcript, p. 3108, lines 7-9.) This opinion about the *relevance* of DNA adducts appeared nowhere in her report (or anywhere else that the City could access).

The Sixth Circuit rejected the testimony of an expert who:

does not testify on the basis of the collective view of his scientific discipline, nor does he take issue with his peers and explain the grounds for his differences. Indeed, no understandable scientific basis is stated. Personal opinion, not science, is testifying here. [The expert’s] own expressed skepticism as to the value of extrapolating human conclusions from animal studies further confounds the issue. Upon analysis, we conclude that [the expert’s] conclusions go far beyond the known facts that form the premise for the conclusion stated. This conclusion so overstates its predicate that we hold that it cannot legitimately form the basis for a jury verdict.

*Turpin v. Merrell Dow Pharmaceuticals, Inc.*, 959 F.2d 1349, 1360 (6<sup>th</sup> Cir. 1992). Dr. Mohr’s testimony is no different, and should be excluded on the same grounds.

Respectfully submitted,



Robert S. Chapman

cc: All Counsel via Email & LNFS